



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,878	02/27/2004	Daniel Fiat	7628-91548	7128

7590 08/12/2008
Jon P. Christensen
Welsh & Katz, Ltd.
22nd Floor
120 South Riverside Plaza
Chicago, IL 60606

EXAMINER

VARGAS, DIXOMARA

ART UNIT	PAPER NUMBER
----------	--------------

2831

MAIL DATE	DELIVERY MODE
-----------	---------------

08/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/788,878	Applicant(s) FIAT, DANIEL	
	Examiner DIXOMARA VARGAS	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 38-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea) and is not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result). The language in the claim suggest only a combination of instructions without reciting a structure associated to the procedure and lacks a tangible result at the end of the procedure.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 38-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 3,085,195) further in view of F.A. Nelson (US 3,348,137).

With respect to claims 38 and 41, Anderson discloses a method of multinuclear magnetic resonance spectroscopy and imaging comprising the steps of: generating an exciter signal (by probe #16 in Figure 3); synthesizing a plurality of synthesized signals appropriate to the atomic species to be studied (Figure 3, #21); mixing the exciter signal with the plurality of synthesized signals, creating a plurality of generated signal (Column 6, lines 14-32); exciting a molecule containing a plurality of atoms having different atomic weights with the plurality of generated signals; receiving a plurality of experimental signals within different Larmor frequency ranges from the plurality of decoupled atoms of the molecule excited by the plurality of generated signals (Columns 2-3, lines 12-23 and 22-42 respectively).

In addition, Anderson discloses the claimed invention as stated above except for the step of decoupling the atoms. However, Nelson discloses the step of decoupling the atoms (Column 2, lines 19-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to decouple the atoms as taught by Nelson with Anderson's method of multinuclear MR spectroscopy and imaging for the purpose of reducing the number of resonance lines and peaks as taught by Nelson (Column 1, lines 13-28).

4. With respect to claims 39 and 42, Anderson discloses the step of mixing the received experimental signals with a plurality of corresponding synthesized signals, thereby creating a plurality of final signals (Column 6, lines 14-32).

5. With respect to claims 40 and 43, Anderson discloses the step of exciting atoms with the exciter signal; and receiving an exciter experimental signal (Column 3, lines 22-43).

6. Claims 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 3,085,195) and F.A. Nelson (US 3,348,137) in view of Keren (US 5,160,891 A).

With respect to claims 44-48, Anderson and Nelson disclose the claimed invention as stated above in paragraph 3 except for the step of digitizing the final signals by separated devices. However, Keren discloses the step of digitizing the final signals by separated devices (Figure 1, #42-#46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to digitizing the signals by separated devices as taught by Keren with Anderson and Nelson's method of multinuclear magnetic resonance spectroscopy and imaging for the purpose of sending a digital signal from the processor to the digital display means.

Response to Arguments

7. Applicant's arguments filed 09/04/07 have been fully considered but they are not persuasive.

8. Applicant argues that Anderson's molecules in the gyromagnetic bodies are different than the claimed molecules.

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specific type of molecules) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Anderson's bodies are

Art Unit: 2831

considered to be the molecules having the plurality of atoms since it is an object that contains matter wherein matter is composed of molecules containing atoms.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIXOMARA VARGAS whose telephone number is (571)272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dixomara Vargas/
Patent Examiner,
Art Unit 2831

Application/Control Number: 10/788,878
Art Unit: 2831

Page 6